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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/536,089      | 03/24/2000  | Xin Wang             | D/99194Q            | 2192             |

7590 12/11/2003

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| EXAMINER |
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HOSAIN, AKRAM M

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| ART UNIT | PAPER NUMBER |
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2133

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/536,089

Applicant(s)

WANG, XIN

Examiner

Akram M Hosain

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 24 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 6-10. 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1 - 26 are presented for examination.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 120, which papers have been placed of record in the file dated 10/23/98.

***Information Disclosure Statement***

3. The references listed in the information discloser statement submitted on 7-14-00, 11-16-01, 8-7-02, 8-9-02, 8-30-02, and 9-27-02 have been considered by examiner (see attached PTO-1449).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claim 1-5, 10, 11, 14-18, 23, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Ciacelli et al. (USP 6,236,727).

As per claim 1 & 14:

Ciacelli et al teaches a method /system of protecting a digital work, during transformation by a transformation function into presentation data wherein the digital work includes digital content and formatting information, comprising:

Encrypting the digital work, in accordance with a format preserving encryption scheme (Fig. 3 & col. 6, lines 34-53);

Transforming the encrypted digital work into encrypted presentation data (Fig. 1, encryption module [22], col. 4, lines 32-52); and

Decrypting the encrypted presentation data, in accordance with a decryption function to obtain the presentation data (Fig. 4, col. 6, line 54 – col. 7, line 16).

As per claim 2 & 15:

Ciacelli et al teaches the encryption function is an additive encryption scheme (layer-encryption, col. 4, lines 53-67).

As per claim 3 & 16:

Ciacelli et al teaches the additive encryption scheme is selected from the group consisting of Mult, Exp, EG, OU, RSA and compositions thereof (Applied Cryptography, [RSA], col. 4, line 52).

As per claim 4 & 17:

Ciacelli et al teaches a multivariate integer coefficient affine function and an additive encryption scheme (col. 4, lines 32-67).

As per claim 5 & 18:

Ciacelli et al teaches an affine type coordinate transformation of original location (x, y) to transformed location (x', y') (Fig. 4, Re-scrambled data, col. 7, line 1).

As per claim 10 & 23:

Ciacelli et al teaches the encryption scheme encrypts the variables while leaving the coefficients in the clear (original data vs. copyright data, col. 4, lines 32-35).

As per claim 11 & 24:

Ciacelli et al teaches the digital work comprises data and coordinate information, wherein the transformation function converts encrypted data and coordinate information a into a presentation data (Fig. 4, col. 6, line 54 – col. 7, line 16).

***Claim Rejections - 35 USC § 103***

6. The following is quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 6-9, 12, 13, 19 - 22, 25 and 26 are rejected under 35 U.S.C. 35 103(a) as being unpatentable over Ciacelli et al (USP 6,236,727) in view of Huttenlochet et al (USP 6,011,905).

As per claim 6, 8, 19 & 21:

Ciacelli et al does not explicitly teach the digital work comprises a token-based document.

Huttenlocet et al teaches the dictionary consists of a collection of pairs, each comprising an identifier and an associated token, the table of location information comprises a table of tuples, each comprising an identifier id, an x-coordinate and a y-coordinate for each page of the document, and wherein the transformation function includes a subroutine Lookup that, given a valid token identifier id, returns its corresponding token image (Fig. 12, 13 & col. 16, line 14, col. 17, line 36).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ciacelli et al apparatus and method for protecting copyright data to include the copyright data is location and token based described by Huttenlocet et al. This modification would have been obvious because a person of ordinary skill in the art would have been motivated to ensure the document processing based on token in order to render easily to a printer or any other rendering system.

As per claim 7, 13, 20 & 26:

Ciacelli et al teaches an additive encryption scheme and a probabilistic encryption scheme (Applied Cryptography, [RSA], col. 4, line 52).

Ciacelli et al. does not explicitly teach additive encryption to be used for the location table and probabilistic encryption scheme to be used for the token identifier.

However, Huttenlocet et al in an analogous art teaches the location table and the token identifiers in order to easily render it to a printer (Fig. 11 & col. 15, lines 1 – col. 16, line 13).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ciacelli et al apparatus and method for protecting copyright data to include the copyright data is location and token based described by Huttenlocet et al. This modification would have been obvious because a person of ordinary skill in the art would have been motivated to ensure the document processing based on token in order to render easily to a printer or any other rendering system.

As per claim 9 & 22:

Ciacelli et al teaches the token images comprise characters and graphics (MPEG, col. 7, line 22).

As per claim 12 & 25:

Ciacelli et al teaches an additive encryption scheme and any combination of the tuples may be encrypted by the additive encryption (col. 4, lines 32-67).

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8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Aucsmith et al. USP 5,991,403

This patent pertains to a recoverable cryptographic transformation on YUV data suitable for compressions.

b. Stefik et al. USP 6,236,971

This patent pertains to a system for controlling the distribution and use of digital works using digital tickets.

c. Stefik et al. USP 6,233,684

This patent pertains to a system for controlling and use of rendered digital works through watermarking.

d. Saito USP 6,424,715

This patent pertains to a digital content management system and apparatus.

e. Yamadaji USP 6,192,138

This patent pertains to an apparatus and method for embedding /unembedding supplemental information.

f. Uesaka et al. USP 6,044,157

This patent pertains to a microprocessor suitable for reproducing AV data while protecting the AV data from illegal copy and image information processing system using the microprocessor.

g. Moriyama et al. USP 6,006,004

This patent pertains to an information record medium, apparatus for recording the same and apparatus for reproducing the same.

h. Saito USP 5,867,579

This patent pertains to an apparatus for data copyright management system.

i. Kitazato USP 5,600,721

This patent pertains to an apparatus for scrambling a digital video signal.

**-Any response to this action should be mailed to:**

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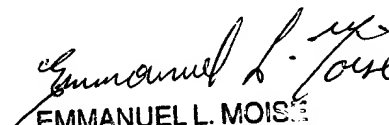
Crystal Drive, Arlington, VA

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akram Hosain whose telephone number is (703) 305-0713. The examiner can normally be reached on 8:45-5:15 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (703) 305-9595.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

  
Akram Hosain  
Patent Examiner  
Art unit #2133  
8 December 2003

  
EMMANUEL L. MOISE  
PRIMARY EXAMINER